

# Meeting of the Subsidiary Bodies to the Convention on Climate Change, Bonn, June 1999

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### INTRODUCTION

A coherent compliance system for the Kyoto Protocol should, and probably will, be established under various provisions of the Protocol. Many of the basic elements required to assess compliance with the 1997 Protocol are already in place under the 1992 Framework Convention on Climate Change (FCCC). These now need to be elaborated to deal with the Protocol commitments and the shift in emphasis towards a stronger system for identifying and addressing compliance and implementation problems. The way to achieve this elaboration will be debated by both Subsidiary Body for Scientific and Technical Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) in June 1999. Specifically, the SBSTA/SBI joint working group on compliance has been given the task of identifying all compliance-related elements in the Protocol and ensuring that coherent approaches to developing a comprehensive system are followed. This work will be essential in building confidence in the Protocol and providing for its effective implementation once it enters into force.

Articles 5, 7 and 8, which deal with greenhouse gas inventory methodologies, reporting and review respectively, will be fundamental to the compliance regime. These are being considered in detail by the subsidiary bodies. The SBSTA agenda includes methodological issues related to preparation, reporting and review of Annex I parties' national communications, while SBI will discuss the implementation of reporting and review processes for both Annex I and Annex II parties.

The rules and modalities for the Kyoto Mechanisms (Articles 6, 12 and 17) should also provide important elements for the overall compliance system. They will serve the dual purpose of ensuring that the individual mechanisms operate fairly and that they meet the wider requirements of the Protocol and the Convention. Ideally the rules covering the mechanisms will enhance and supplement the overall compliance regime. Of particular concern at present is the Clean Development Mechanism (CDM) because it is due to start operating in 2000. Article 12 allows for Certified Emission Reductions (CERs) obtained from the year 2000 to be used to assist parties in achieving compliance in the first commitment period. If the mechanism is to be credible it must be seen to be operating fairly, with CERs only being awarded when it has been verified that the reductions have occurred.

In all aspects of the Protocol there is a need to start 'learning by doing', because implementation of the many systems and processes which will be required will take time to get right. A start needs to be made on building the institutional knowledge and understanding of the processes that will be required by 2008.

This briefing paper sets out some of the most pressing issues which will need to be resolved at the June 1999 meeting of the subsidiary bodies in order to maintain confidence in the Kyoto Protocol. Wherever possible potential solutions are offered. It starts with a section on inventory methodologies, reporting and review, followed by an examination of two pressing issues relevant to the Kyoto Mechanisms: baseline methodology and additionality; and supplementarity and hot air.

However, the best way to build confidence in the Protocol is for parties to begin to ratify. Early emissions reductions and innovation depend on the sure knowledge that parties will be required to limit emissions. Without ratification, momentum and confidence in the agreement will be lost and the Protocol could be doomed to failure.

## MONITORING, REPORTING AND REVIEW

### Articles 5, 7 and 8

Monitoring, reporting and review of greenhouse gas inventories will be the backbone of the compliance system, since these provide the information by which compliance with commitments can be verified. Procedures are already in place under the Convention but these need to be elaborated to meet the needs of the Protocol.

Article 5 deals with the need for reliable annual greenhouse gas inventories. It requires that, by 2007, Annex I parties have in place national systems for the estimation of greenhouse gas emissions and removals, and suggests that guidelines for such national systems should be decided by the Conference of the Parties (COP). This is an opportunity to set clear standards for national performance in inventory preparation and data quality management which should not be lost. The Organisation for Economic Co-operation and Development (OECD) has suggested that these standards could cover aspects such as; the institutional arrangements for inventory preparation, choice of methodology, data collection procedures and internal review. Such standards would provide a quality benchmark by which inventories could be judged and compared by the COP and either independent or private sector auditors. By giving greater confidence in the data underlying compliance, assessment standards would help to instil confidence in the agreement as a whole.

Under Article 7 requirements emissions inventories are to be reported annually, and national communications produced at intervals to be decided. This emphasis on the inventories will allow careful and focused consideration of the data required to assess compliance, which seems sensible. Annual reporting will also encourage parties to check their inventories for consistency and keep them updated.

In order to demonstrate compliance with the Protocol more information will be required from parties than to date. This is referred to as *supplementary information* in Article 7. Parties will need to start including, for example, data on carbon stocks and emissions of the gases perfluorocarbon (PFC), hydrofluorocarbon (HFC) and sulphur hexafluoride (SF<sub>6</sub>). Changes to inventory methodology and reporting might take several years to implement. This means that decisions on what and how parties should be reporting need to be made soon, in order that capacity can be built to implement the new systems.

Clear guidelines are also required on what should be included in the national communications and how often these should be produced. It would make sense to encourage streamlining of these reports in order that they serve the needs of the review process defined in Article 8. The national communications might include,

for example, specific indicators of performance, identification of implementation problems and assessment of compliance. Streamlining will also reduce the workload associated with producing national communications, which should encourage parties to report on time.

Review systems also need to be expanded from the current system under the Convention to assess compliance with all obligations of the Protocol. Article 8 essentially sets up a two-part review system:

- i) an annual review of inventories, and
- ii) a less frequent, more broadly based review of parties' national communications.

Both types of review are to be carried out by expert review teams. It is imperative that these expert reviews are objective and consistent in order to build confidence in the compliance system and in the Protocol as a whole. In particular it should be recommended that a common group of individuals is used to consider the full set of annual reports.

### Accounting of assigned amounts

In addition to the elaboration of current procedures, as described above, a critical new task will be accounting of assigned amounts to verify compliance with Article 3 commitments. Since the assigned amounts also provide the reference point for all activity relating to the Kyoto Mechanisms, accurate accounting is vital for their effective implementation.

The assigned amount is to be calculated from the base year inventory according to the quantified emission limitation and reduction commitments (QELRC) described in Annex B. A key early task is to agree on methods to determine the assigned amounts represented at present by Annex B targets for each country. Parties with economies in transition may decide to use a baseline other than 1990 for all their emissions and other parties need to determine which base year they wish to use for data of PFCs, HFCs and SF<sub>6</sub>. Parties need to ensure that the base year inventory includes all six gases covered by the Protocol. Data on carbon stocks and emissions and removals from land-use change and forestry activities must also be included. In short, calculating assigned amounts is an important task that is likely to prove problematic. Time and effort will need to be spent to ensure that parties calculate their assigned amounts using consistent methodologies. For this reason reporting and reviewing the base year inventory should be a focus in coming years in order to prepare for entry into force of the Protocol.

In addition, systems need to be established to ensure that the assigned amounts are accounted for in a co-ordinated manner. Initial accounting and reporting will be the responsibility of the parties, and they will need guidance on what data is to be gathered and reported. This information will be reported alongside the

national inventories and will account for some of the 'supplementary information' required under Article 7. At the very least, this should consist of a report of activities and transactions in order that transfers and acquisitions affecting national assigned amounts can be tracked and verified. Guidelines for the national communications could stipulate that further information is given here to provide more confidence, for example a demonstration that emission reduction units transferred or acquired have been verified. A reliable system also needs to be established to monitor and track the assigned amounts at the international level. Again, it would be useful to set up prototype systems as soon as possible to build the necessary institutional experience before 2008.

## ASPECTS OF THE KYOTO MECHANISMS

### Baseline Methodology and 'additionality'

Effective operation of both the CDM and JI is based on the premise that it is possible to measure the emissions reductions that have taken place due to a CDM or Joint Implementation (JI) project being in place, in order to reward donor parties with certified emissions reductions (CERs) or emission reduction units (ERUs) respectively. Parties are also required to demonstrate that these emissions reductions are *additional* to any that would have occurred in the absence of the CDM or JI project.

Project partners attempt to meet these requirements by providing a baseline scenario; a quantitative projection of the emissions that would have occurred in the absence of the CDM or JI project. Experience with emissions baselines has already accumulated under the activities implemented jointly (AIJ) pilot phase, but the findings make depressing reading; AIJ baselines have been inconsistent, incomplete and not transparent. The only real lesson to have been learnt is that much more effort needs to be concentrated on improving baseline methodology. This is now urgent given that, under the CDM, emissions reductions obtained from next year can be used to assist in achieving compliance in the first commitment period.

The baseline is not easily defined because it is essentially arbitrary. Long-term forecasts of any number of externalities such as technology, behaviour and policy indicators might be included, meaning that a range of baselines could be credibly defended for the same project. The greatest problems occur where there is no definite alternative with which to compare the project. For example, it is relatively easy to define the emissions that have been saved by replacing a coal-fired power plant with a renewable energy project. But what assumptions should be made about the baseline emissions where a renewable energy project is built in an area currently without any means of producing electricity? This problem results in significant

uncertainty surrounding the number of CERs or ERUs that should be transferred to the donor country.

A number of alternative methodologies for constructing baselines have been circulated, but they basically fall into two camps; project-specific or standardised methodologies. Projects to date have constructed project-specific methodologies. This approach would appear at first sight to offer the most reliable and fair means of measuring and verifying the actual additional emissions reductions that have occurred, because values specific to the given project area are used. However, there are drawbacks, the most serious being the potential for project partners to inflate the baseline to claim more emissions reductions than really occur. In this case the environment suffers, as donor parties increase their assigned amounts without producing adequate emissions reductions in the host country to offset them.

Standardisation of baselines, together with a proper system of monitoring and verification, could help overcome this problem. One form of standardisation is the various benchmarking schemes proposed. In essence, these consist of default project - or technology - specific baselines, with differentiation for the different socio-economic circumstances of different types of countries. These give a benchmark for projects with broadly the same characteristics, operating under similar application circumstances. Although standardisation may remove some of the accuracy of the project-specific approach, it systematises the arbitrary nature of the baseline. This provides consistency and comparability, and therefore a method to verify whether emissions have actually occurred.

A second method of standardisation is top-down baselines. In JI projects, host countries use their assigned amounts as a basis to derive, for each sector or technology, the emissions per unit of energy used at which, if combined, the party's QELRC would be fulfilled. In this method additionality does not have to be explicitly verified because any reductions from this baseline will produce emissions reductions above those which the host country would be aiming to achieve anyway. Of course this assumes that parties will only be aiming to meet their commitments rather than exceed them. The methodology is not easily transferred to the CDM, where host countries do not have a QELRC. It might be possible to set sector-specific emission targets as a reference scenario from which individual project baselines could be derived. These reference scenarios would need to be based on a simulated national emission target, approved by the FCCC to prevent baseline inflation by the host. Given the present distrust by non-Annex I parties over any suggestion of emissions limitation commitments, it seems unlikely that host countries would agree to such a mechanism. Given that the CDM is to become operational in 2000, it would not seem sensible to rush into any scheme. At



this early stage further experience at a project-specific level may prove useful. However, user-friendly guidelines, in the same vein as the IPPC guidelines for national inventories, are urgently required to provide some consistency and comparability between project baselines and allow verification of emissions reductions. A two-stage project review scheme would ensure that ERUs and CERs are not granted unless they have really occurred. This would consist of ex-ante project and baseline approval and ex-poste verification and certification of emissions reductions. Ex-poste baseline checks would be the only true method for establishing if additional emissions reductions had occurred.

### Supplementarity and hot air

A great weakness of the Kyoto Mechanisms is that they do not lead to any global emissions reductions further to those agreed between parties and set out in Annex B. The option to reach their commitments through buying cheaper reductions abroad removes the incentive for innovation leading to domestic emissions reductions. To compound this problem, in certain cases use of the mechanisms can result in no actual reduction in emissions. This situation has arisen because emissions from some countries (notably those of the former Soviet Union) have fallen dramatically since the baseline year, and yet these countries have no reduction targets. These countries are able to sell or transfer portions of assigned amounts, which, in reality, would never have been emitted. These emissions are known as *hot air*. These loopholes clearly contravene the spirit of the FCCC.

Largely in order to contain these problems, Articles 6 (JI) and 17 (trading) require that the use of the Kyoto Mechanisms shall be *supplemental* to domestic actions for the purposes of meeting commitments. This provides a valuable opportunity to prevent potential legalised cheating by the North Americans and Western Europeans to meet their commitments.

The most practical way to ensure that JI and trading are supplemental to domestic action would be to cap the use of these mechanisms, as proposed by the EU. This idea is not as simple as it sounds however, and some thought needs to be given to the detail. For example, trading is likely to be, in effect, capped anyway. This is because many sources of emissions are uncertain and the uncertainty varies from country to country. It is highly unlikely that parties will be permitted to apply the mechanisms to all of their assigned amounts because it would be impossible to estimate their value. In this case what would the cap be on? A proportion of the accurately measurable assigned amount, the total assigned amount, or something else? These are problems that the parties should bear in mind when discussing caps on the Kyoto Mechanisms.

## CONCLUSIONS

- Monitoring, reporting and review will provide the backbone of a system to assess compliance with the Kyoto Protocol. Decisions should be made in order to allow these systems to become operational as soon as possible. This will allow institutional capacity to be built and instil confidence in the regime.
- Emissions baselines provide the basis for verification of additional emissions reductions in the CDM and JI. User-friendly guidelines are urgently needed to ensure that baselines are calculated in a consistent and fair manner.
- There is a need to limit the use of the Kyoto Mechanisms to ensure that the effectiveness of the Protocol does not come to rely too much on hot air from the countries of the former Soviet Union. However, parties need to think carefully about how this should be achieved.

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